

ARTEM'YEV, Yu.N., kand. tekhn. nauk; ASTVATSATUROV, G.G., inzh.;
 BARABANOV, V.Ye., inzh.; BARYKOV, G.A., inzh.; BISHOVATYY, S.I.,
 inzh.; GALAYEVA, L.M., inzh.; GAL'PERIN, A.S., kand. tekhn. nauk;
 GAL'CHENKO, I.I., inzh.; GONCHAR, I.S., kand. tekhn. nauk;
 DECTYAREV, I.L., kand. tekhn. nauk; DYADYUSHKO, V.P., inzh.;
 YERMAKOV, I.N., inzh.; ZHOTKEVICH, T.S., inzh.; ZUSMANOVICH, G.G.,
 inzh.; KAZAKOV, V.K., inzh.; KOZLOV, A.M., inzh.; KOROLEV, N.A.,
 inzh.; KRIVENKO, P.M., kand. tekhn. nauk; LAPITSKIY, M.A., inzh.;
 LEBEDEV, K.S., inzh.; LIBERMAN, A.R., inzh.; LIVSHITS, L.G., kand.
 tekhn. nauk; LOSEV, V.N., inzh.; LUKANOV, M.A., inzh.; LYUBCHENKO,
 A.M., inzh.; MAMEDOV, A.M., kand. tekhn. nauk; MATVEYEV, V.A.,
 inzh.; ORANSKIY, N.N., inzh.; POLYACHENKO, A.V., kand. tekhn. nauk;
 POPOV, V.P., kand. tekhn. nauk; PUSTOVALOV, I.I., inzh.;
 PYTCHENKO, P.I., inzh.; PYATETSKIY, B.G., inzh.; RABOCHIY, L.G.,
 kand. tekhn. nauk; ROL'BIN, Ye.M., inzh.; SELIVANOV, A.I., doktor
 tekhn. nauk; SEMENOV, V.M., inzh.; SKOROKHOD, I.I., inzh.; SLABODCHIKOV,
 V.I., inzh.; STORCHAK, I.M., inzh.; STRADYMOV, F.Ya., kand. tekhn.
 nauk; SUKHINA, N.V., inzh.; TIMOFEYEV, N.D., inzh.; FEDOSOV, I.M.,
 kand. tekhn. nauk; FILATOV, A.G., inzh.; KHODOV, L.P., inzh.;
 KHROMETSKIY, P.A., inzh.; TSVETKOV, V.S., inzh.; TSEYTLIN, B.Ye.,
 inzh.; SHARAGIN, A.M., inzh.; CHISTYAKOV, V.D., inzh.; BUD'KO, V.A.,
 red.; PESTRYAKOV, A.I., red.; GUREVICH, M.M., tekhn. red.
 (Continued on next card)

ARTEM'YEV, Yu.N.--- (continued) Card 2.

[Manual on the repair of machinery and tractors] Spravochnik po
remontu mashinno-traktornogo parka. Pod red. A.I.Selivanova.
Moskva, Sel'khozizdat. Vols.1-2. 1962. (MIRA 15:6)
(Agricultural machinery---Maintenance and repair)
(Tractors---Maintenance and repair)

PIATETSKIY, Boris Grigor'yevich; ZELENETSKAYA, L.V., red.; LEVINA, L.G., tekhn.
red.

[Manual for lathe operators in repair shops] Spravochnik tokaria re-
montnoi masterskoi. Moskva, Izd-vo M-va sel'.khoz. RSFSR, 1961.
218 p. (MIRA 14:7)

(Turning)

PYATETSKIY, B., inzhener.

Saving metal in lathe operations. MTS 14 no.3:28-29 Mr '54.
(MLRA 7:4)

1. Moskovskiy mekhanicheskii zavod. (Turning)

1. PYATETSKIY, B.
2. USSR (600)
4. Metal Spinning
7. Sheet metal spinning on a lathe. MTS No 12 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. TSAR'KOV, G. ; PYATETSKIY, B.
 2. USSR (600)
 4. Drilling and Boring Machinery
 7. Universal device for boring main bearings in cylinder blocks.
Tekhnosc. MTS 13. No. 37. 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

FYATETSKIY, B. ; FYAIKO, N.

Diesel Motor

New lubricator for engine 1D 26/30. MTS, 12, No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

PYATETSKIY, Boris Grigor'yevich; POLUYANOV, V.T., red.vypuska; ALEKSEYEV, G.P.,
inzh., red.; BUSHUYEV, N.M., kand.tekhn.nauk, red.; GUTMAN, I.M., inzh.,
red.; PICHAK, P.I., kand.tekhn.nauk, red.; POLKANOV, I.P., kand.tekhn.
nauk, red.; DUGINA, N.A., tekhn.red.

[Grinding and lapping of motor vehicle parts] Pritirka i dovodka
avtotraktornykh detalei. Izd.2. Moskva, Gos.nauchno-tekhn.isd-vo
mashinostroit.lit-ry. 1959. 109 p. (MIRA 12:12)
(Grinding and polishing) (Motorvehicles--Maintenance and repair)

PICHAK, Fedor Ivanovich, kand.tekhn.nauk; ALEKSEYEV, G.P., inzh., red.;
KUZ'MOV, N.T., inzh., red.; PYATITSKIY, B.G., inzh., red.;
PLAKSIN, V.N., inzh., red.; SOBOLEV, L.A., inzh., red.;
IGNAT'YEV, M.G., agronom, red.; MARCHENKOV, I.A., tekhn.red.

[Checking parts in repairing tractors and agricultural machinery]
Kontrol' detalei pri remonte traktorov i sel'skokhoziaistvennykh
mashin. Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit.lit-ry,
1960. 89 p. (MIRA 14:1)

(Tractors--Maintenance and repair)
(Agricultural machinery--Maintenance and repair)

PYATETSKIY, B.G.

~~_____~~
A screw driver for spots hard to reach. Stan. 1 instr. 26 no.7:
44 J1 '56. (MLRA 9:10)

(Screw drivers)

PYATETSKIY, B.G.

USSR/ Engineering - Industrial processes

Card 1/1 Pub. 103.- 14/20

Authors : Pyatetskiy, B. G.

Title : Rational method of lathe machining

Periodical : Stan. i instr. 26/3, page 33, Mar 1955

Abstract : A proper method of operating lathes during the machining of tapered objects, rings and round nuts is introduced. Drawing.

Institution :

Submitted :

PYATETSKIY, D. G.

STANKI I INSTRUMENT

Machine Tools and Cutting Tools

No. 7, July, 1956

A screwdriver for inaccessible positions.
The screwdriver consists of two leaf springs clamped in
stem and pre-formed to separate.
By B. G. Pyatetskiy.

PYATETSKIY, Boris Grigor'yevich; PICHAK, P.I., kandidat tekhnicheskikh nauk, retsenzent; DUGINA, N.A., tekhnicheskiiy redaktor

[Grinding and polishing tractor parts] Fritirka i dovodka avto-traktornykh detalей. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 101 p. (MIRA 10:1)
(Tractors)

PYATETSKIY B.G.
ARTEM'YEV, Yu.N., kandidat tekhnicheskikh nauk; **ALEKSEYEV**, I.A., inzhener;
ASTVATSATUROV, G.G., inzhener; **BISNOVATYY**, S.I., inzhener; **BONDAREN-**
KO, A.F., inzhener; **GURAL'NIK**, Ye.L., inzhener; **GORBUNOV**, M.F., inzhene-
 ner; **ZLATKOVSKIY**, A.P., kandidat tekhnicheskikh nauk; **KATTS**, N.V., in-
 zhener; **KITAYEV**, A.S., inzhener; **KOZLOV**, A.M., inzhener; **LEONOV**, P.T.,
 inzhener; **LIVSHITS**, L.G., kandidat tekhnicheskikh nauk; **LIBERMAN**, A.B.,
 inzhener; **LINNIK**, Ye.M., inzhener; **LUKANOV**, M.A., inzhener; **MOROZOV**,
 S.A., inzhener; **POGORELYY**, I.P., kandidat tekhnicheskikh nauk; **PETROV**,
 S.A., kandidat tekhnicheskikh nauk; **PYATETSKIY**, B.G., inzhener; **RABO-**
CHIY, L.G., kandidat tekhnicheskikh nauk; **SILIVANOV**, A.I., kandidat
 tekhnicheskikh nauk; **FERBERG**, B.S., kandidat tekhnicheskikh nauk;
CHISTYAKOV, V.D., inzhener; **CHUNIKHIN**, V.M., inzhener; **SHIRYAYEV**, A.I.,
 inzhener; **SHCHUPAK**, A.D., inzhener; **KUCHUMOV**, P.S., inzhener, redaktor;
PETROV, S.A.; **PESTRYAKOV**, A.I., redaktor; **BALLOD**, A.I., tekhnicheskii
 redaktor.

[Handbook of equipment for repairing tractors and agricultural machine-
 ry] Spravochnik po oborudovaniyu dlia remonta traktorov i sel'skokho-
 ziaistvennykh mashin. Moskva, Gos. izd-vo selkhoz. lit-ry, 1954. 646 p.
 (MIRA 7:11)

(Tractors--Repairing) (Agricultural machinery--Maintenance and
 repair)

PYATETSKIY, Boris Grigor'yevich; ALEKSEYEV, G.P., inzh., red.; BUSHUYEV, N.M., kand.tekhn.nauk, red.; GUTMAN, I.M., inzh., red.; KUZ'MOV, N.T., inzh., red.; IGNAT'YEV, M.G., agronom, red.; PICHAK, F.I., kand.tekhn.nauk, red.; POLKANOV, I.P., kand.tekhn.nauk, red.; DUGINA, N.A., tekhn.red.

[Recent developments in the repair of agricultural machinery]
Novoe v remonte sel'skokhoziaistvennoi tekhniki. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 99 p.
(MIRA 13:9)

(Agricultural machinery--Maintenance and repair)

PYATETSKIY, B. G.

USSR/Miscellaneous - Industrial Processes

Card 1/1

Author : Pyatetskiy, B. G.

Title : Broaching attachment on a lathe

Periodical : Stan. i Instr., No. 5, page 24, May 1954

Abstract : The technological features and operational characteristics of a broaching attachment used on the thread cutter ID62M are described. Broaching with this new attachment is carried out at 120 - 150 rpm of the spindle which corresponds to a linear rate of broaching of 0.96 - 1.2 m/min. The high productivity and the simplicity in the construction of the attachment open new usages for this device. Drawing.

Institution : ...

Submitted : ...

PYATETSKIY, B.G.

PYATETSKIY, B.G.

Broaching attachment for a lathe. Stan.1 instr. 25 no.5:24 My '54.
(Lathe) (MIRA 7:6)

PYATETSKIY, B.G.

Efficient machining on lathes. Stan. 1 instr. 26 no.3:33 Mr '55.
(Machine-shop practice) (MLRA 8:6)

FYATETSKIY, D.; FYALHO, N.

Lubrication and Lubricants

New lubricator for engine 1D 26/30. MIS 12 no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

ANZHAN, G.K.; PYATETSKIY, F.Ye.

Plant protection in Podolia. Zashch.rast.ot vred.i bol. 5
no.3:3-6 Mr '60. (MIRA 16:1)

1. Glavnyy agronom po zashchite rasteniy Khmel'nitskogo
oblastnogo sel'skokhozyaystvennogo upravleniya (for Anzhan).
2. Starshiy agronom sektora sluzhby ucheta i prognozov
Khmel'nitskogo oblastnogo sel'skokhozyaystvennoog upravleniya
(for Pyatetskiy).

(Podolia--Plants, Protection of)

PYATETSKIY, G.Ye.; MOROZOVA, R.M.

Changes in the physical and chemical properties of forest soils
in southern Karelia in connection with timber cutting. Trudy
Kar.fil.AN SSSR no.34:71-92 '62. (MIRA 16:1)
(Karelia--Forest soils) (Cutover lands)

PYATETSKIY, G.Ye.

Effect of the underground water level and temperature on the
growth of young spruce. Izv. Kar. i Kol'. fil. AN SSSR no.1:139-145
'59. (MIRA 12:9)

1. Institut lesa Karel'skogo filiala AN SSSR.
(Soil moisture) (Spruce) (Soil temperature)

PYATETSKIY, G.Ye.

Water balance and physical properties of soil in clear-cut
areas of southern Karelia. Trudy Kar.fil. AN SSSR no.16:
136-152 '59. (MIRA 13:4)
(Karelia--Forest soils)

PYATETSKIY, G.Ye.

Effect of excessive soil moisture in clearings on the germinating force, sprouting and viability of conifer seedlings. Izv. Kar. i Kol'. fil. AN SSSR no.2:141-149 '58. (MIRA 11:9)

1. Institut lesa Karel'skogo filiala AN SSSR.
(Reforestation) (Germination) (Soil moisture)

RIBAS, Yuriy Mikhaylovich [deceased]; AKKERMANN, Fridrikh Markovich;
FYATETSKIY, Grigoriy Yuzefovich; ARNOPOLIN, Aleksandr
Grigor'yevich; STESHENKO, N.N., red.

[Explosionproof electrical equipment for the petroleum,
gas, and chemical industries; a handbook-catalog] Vzryvo-
zashchishchennoe elektrooborudovanie dlia neftianoi, gazo-
voi i khimicheskoi promyshlennosti; spravochnik-katalog.
Moskva, Nedra, 1964. 158 p. (MIRA 17:12)

KHODUNZHIY, Valentin Alekseyevich; RIBAS, Yuriy Mikhaylovich
[deceased]; AKKERMAN, Fridrikh Markovich; ARNOPOLIN,
Aleksandr Grigor'yevich; PYATETSKIY, Grigoriy
Yuzefovich; OZERNOY, M.I., prof., retsenezent

[Explosionproof, electrical mine equipment; a handbook]
Rudnichnoe vzryvobezopasnoe elektrooborudovanie; spra-
vochnik. Moskva, Nedra, 1964. 289 p. (MIRA 17:12)

RIBAS, Yuriy Mikhaylovich [deceased]; AKKERMAN, Fridrikh Markovich;
PYATETSKIY, Grigoriy Yuzefovich; ARNOFOLIN, Aleksandr
Grigor'yevich; STESHENKO, N.N., red.

[Explosionproof electrical equipment for the petroleum,
gas, and chemical industries] Vzryvozashchishchennoe
elektrooborudovanie dlia neftianoj, gazovoi i khimiche-
skoi promyshlennosti; spravochnik-katalog. Moskva, Nedra,
1964. 158 p. (MIRA 18:1)

POSTNIKOV, A.G.; PYATETSKIY, I.I.

Normal sequences of signs according to Bernoulli. Izv. AN SSSR.
Ser. mat. 21 no.4:501-514 Jl-Ag '57. (MIRA 11:6)
(Distribution (Probability theory))

PYATETSKIY, L.D., inzh.

Mechanized loading of wastes in brick factories. Stroi.mat. 5
no.7:40 J1 '59. (MIRA 12:10)
(Brick industry--Equipment and supplies)

PYATETSKIY, G. Ye., Cand Agr Sci -- (diss) "Water regimen of soils of uniformly concentrated cleared areas in the southern part of the Kazakhskaya Autonomous SSR and methods of its regulation." Leningrad, 1960. 16 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Order of Lenin Forestry Engineering im S. M. Kirov); 200 copies; price not given; (KL, 32-60, 146)

PYATETSKIY, G. Ye.

Snow and the freezing and thawing of forest soils in the southern
part of Karelia. Izv.Kar.i Kol'.fil.AN SSSR no.4:112-123 '59.
(MIRA 13:5)

1. Institut lesa Karel'skogo filiala AN SSSR.
(Karelia--Forest soils) (Frozen ground)

PYATETSKIY, G.Ye.

. How the drainage of cutover areas affects the development of young
conifer stands. Trudy Kar.fil.AN SSSR no.21:61-68 '59.

(MIRA 13:5)

(Drainage)

(Coniferae)

PYATETSKIY, G.Ye.

Water balance of the soils of clearcut areas in southern Karelia
and methods of its regulation. Trudy Kar. fil. AN SSSR no.25:
43-58 '61. (MIRA 14:9)
(Karelia--Soil moisture) (Karelia--Drainage)

PYATETSKIY, V.Ye. [P'iatets'kiy, V.IU.] (Kiyev)

Using the electrohydrodynamic method for determining the speed of the flow about the hull of a ship. *Prykl.mekh.* 8 no.4:425-432 '62. (MIRA 15:9)

1. Institut *gidrologii i gidrotekhniki* AN USSR.
(Ships—Hydrodynamics)

PYATETSKIY, Vasily Yefimovich [PIATETS'KYI, V.IU.]; PAVLENKO, G.Ye.
[Pavlenko, H.IE.], akademik, otv. red.; PECHKOVSKAYA, O.M.
[Pechkovs'ka, O.M.], red. izd-va; RAKHLINA, N.P., tekhn.red.

[Vessels of simplified shape for restricted channels] Sudna
sproshchenykh form dlia obmezhenoho farvateru. Kyiv, Vyd-vo
AN URSR, 1962. 66 p. (MIRA 16:3)

1. Akademiya nauk Ukr.SSR (for Pavlenko).
(Hulls (Naval architecture)) (Inland navigation)

PYATETSKIY, V.Ye.

"A Study of Simplified Contours for Cargo Vessels Sailing on Restrictive Waterways."

report presented at the 11th Annual Scientific Technical Conference on Ship Theory, organized by the Central Administration of the Scientific-Technical Society of the Shipbuilding Industry, 13-15 December 1960.

PIATETSKIY, V. YU.

P. IATETS'KIY, V. IY.

Design of freighters with simple outlines for narrow channels.
Visti Inst. hidrol. i hidr. AN URSR 19:62-80 '61. (MIRA 15:7)
(Naval architecture) (Freighters)

RYATETSKY, V. Yu.

P^o IATETS^o KYI V. IU.

Determining in natural conditions the direction of the lines of flow
on a ship's hull. Visti Inst. hidrol. i hidr. AN URSR 19:81-90 '61.
(MIRA 15:7)

(Hulls (Naval architecture))

(Hydraulics)

BALK, M.B. (Smolensk); DUBNOV, Ya. S. (Moscow); ~~PYATETSKIY-SHAPIRO,~~
~~I.I. (Kaluga);~~ VILENKIN, N. Ya. (Moscow); BALASH, E.E. (Moscow);
LEVIN, V.I. (Moscow); DMITRIYEV, N.A. (Moscow); DYNKIN, Ye. B.
(Moscow); NAYMARK, B.A. (Moscow); GEL'FAND, I.M. (Moscow)

Problems of higher mathematics. Mat. pros.no.2:270-274 '57.
(MIRA 11:7)

(Mathematics--Problems, exercises, etc.)

PYATAKOV, I.

How to conquer cold. Moskva, Gos. izd., 1920. 7 p. (Raboche-krest'ianskie listovki, no. 56)

SHITOV, A.P.; RYATAKOV, L.L.; GOEBUL'SKIY, I.Ya.; KULIKOV, I.M.;
KURBAT, S.I.

Induction surface hardening of tractor block bushings instead
of through hardening. Prem.enarg. 11 no.8:21-22 Ag '56.
(Cast iron--Hardening)

GOL'DSHTEYN, Ya.Ye., kandidat tekhnicheskikh nauk; PYATAKOVA, L.L., inzhener;
ZHIZHAKINA, O.D., inzhener.

Cast carbon steel with boron additives. Vest.mash.36 no.7:23-27 J1 '56.
(Boron steel) (MLBA 9:9)

PA 64/49T55

PYATKOV, L. V.

Engineering

Doc 48

Peat Machinery - Performance

Performance of the UNIF-4 Machine during 1948,
L. V. Pyatkov, Head of KRO Glavtrud, 3 1/2 pp

"Part From" No 12

The UNIF-4 cutting and stacking machines were introduced in the industry for the first time in large numbers in the 1948 peat season. This was the first time that Glavtrud and Glavtrudmach workers manufactured and used these machines on a large scale. The mechanization plan for peat stacking and cutting in 1948 was completed 106.8%.

64/49T55

UNIF/Engineering (Contd)

Doc 48

Claims, however, that these results do not, by far, refer to all trusts and enterprises. Dismisses sources of errors and the possibility of improvement in quality of machines and organization.

PDO

64/49T55

PYATERNEV, G.

In the interest of industry and its workers. Sov.profsoluzy
7 no.21:31 N '59. (MIRA 12:12)

1. Brigadir plitsochnikov stroitel'nogo uchastka 84 tresta
"Mosstroy" No.2.
(Moscow--Construction industry)
(Labor laws and legislation)

F

955. NEW STANDARDS FOR DRYING BLOCK PEAT. Bragin, N.A. and Pyatakov, L.W. (Terf. Prom. (Peat Ind.), Sept. 1950, vol. 27, 6-9; abstr. in Chem. Zbl., 1951, vol. 122, (II), 2825). Apart from a special drainage of the drying field the following stack forms based on observations between 1940-1949 have been approved: serpentine (coils), lattices, crosses and cells. In the first phase of drying the serpentine stack is preferable.

PYL'NEV, Valentin Mikhaylovich; ZUBKOV, M.A., otv.red.; FIVKO, G.M.,
tekhn.red.

[Astonishing halves; 75 experiments with potatoes] Udivitel'nye
polovinki; 75 opytov s kartofelem. Moskva, Gos.izd-vo detskoi
lit-ry M-va prosv.RSFSR, 1960. 93 p. (MIRA 13:7)
(Potatoes)

SHISHKIN, V.P., kand.med.nauk; PYL'TSOV, I.M., klinicheskiy ordinator

Diagnosis of thrombosis of the branches of the portal vein using
a splenoportographic method. Vest.rent.i rad. 34 no.6:73-75 N-D
'59. (MIRA 13:5)

(THROMBOSIS radiogr.)

(ANGIOGRAPHY)

(PORTAL VEINS dis.)

PYATAKOV, M. L.

Excretory system of the Cladocera. Zool. zhur. 34 no. 6: 1441-1444
N-D '55 (MLBA 9:1)

1. Rybovodno-biologicheskaya stantsiya Aralryboda.
(Cladocera) (Endocrinology)

PYATAKOV, M.L.

On the seasonal changes in fecundity in Cladocera. [with English
summary in insert]. Zool.zhur.35 no.12:1814-1819 D '56.
(MIRA 10:1)

1. Rybovodno-biologicheskaya laboratoriya Aralrybvoda.
(Cladocera) (Parthenogenesis) (Animals)

AUTHORS: Polivanov, V.V., Il'in, V.V. SOV/48-23-4-4/21
Iz'yurov, A.V., Pyatakov, N.I., Shumova, R.V.

TITLE: The Feeding Installation of Electron Microscopes UEMB-100
(Pitayushcheye ustroystvo elektronnoy mikroskopa UEMB-100)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1959,
Vol 23, Nr 4, pp 450 - 453 (USSR)

ABSTRACT: First, mention is made of the investigation carried out by
Leisegang (Ref 1), and it is pointed out that the require-
ment in electron microscopes with voltages as high as
100 kv of not allowing voltage and current fluctuations
at the lenses to exceed 14.10^{-3} % can be met only by
electronic stabilization of the current source. Figure 1
shows the block diagram of the apparatus. The electromagnetic
stabilizer SNE-220-0,5 is made use of in the scheme. The
lens current is electronically stabilized, its fluctuation
amounting to 0.001%. The number of ampere turns of all
lenses can be varied in a wide range. The selenium rectifiers
for the high voltage of 100 kv allow a load of 120mA, the
electronic stabilization of this high voltage occurs through

Card 1/2

The Feeding Installation of Electron Microscopes SOV/48-23-4-4/21
UEMB-100

anode tubes of the type 6Kh6S. Here as well, voltage fluctuation amounts to 0.001%. A description follows of the current supply into the vacuum cell of the instrument. Figure 4 shows the scheme of the focusing electrode of the electron accelerator, in which a diode of the type 2D9S is used. Finally, the present paper deals with the mechanical construction of the current source, the insertion into the whole instrument, and its applicability. There are 6 figures and 3 references, 1 of which is Soviet.

Card 2/2

AKKERMAN, F.M., inzh.; PYATETSKIY, G.Yu., inzh.; RYBKO, B.P., inzh.

Standardization of current conducting binding posts of explosion-proof electrical equipment. Elektrotehnika 35 no.2:16-17 F '64.
(MIRA 17:3)

PYATETSKIY, M.

Simplification of cattle procurement. Mias. ind. SSSR 30 no.5:35-36
'59. (MIRA 13:1)

1. Moskovskiy oblastnoy sovnarkhoz.
(Meat industry)

PYATETSKIY, V.Yu. [P^uiatets'kyi, V.IU.]

Visualizing the flow of the stream around the ship model.

Visti Inst. gidrol. i gidr. AN URSR 17:47-52 '60.

(MIRA 14:8)

(Ship models—Testing)

PYATETSKIV, V.Yu. [P'iatets'kyi, V.IU]

Using the electrohydrodynamic method in investigating the phenomena of the flow of the stream around cargo ships under conditions of a restricted fairway. Visti Inst. gidrol. i gidr. AN URSR 17:53-58 '60. (MIRA 14:8)
(Ship models--Testing)

ACCESSION NR: AT4041503

S/2910/63/003/01-/0129/0137

AUTHOR: Ivanova, A. V., Ivanova, A. N., Prikhozhenko, A. I., Pyatetskiy-Shapiro, I. I., Tarnopol'skiy, B. L.

TITLE: Calculation of the electron shells of some atoms by the Hartree - Fock method

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 3, no. 1-2, 1963, 129-137

TOPIC TAGS: quantum mechanics, electron shell, Hartree Fock method, electron configuration, computer programming, single configuration approximation, field theory, boundary value problem, iteration procedure, lithium atom, nitrogen ion, photoionization

ABSTRACT: A program for computer solution of the classical Hartree-Fock, self-consistent field equations was written, using the single-configuration approximation and neglecting the influence of the ionizing electron. For a discrete spectrum the method centers around the iteration solution of the following type of equation:

$$\frac{d^2 y}{dr^2} + V(r)y + \int_0^\infty G(r, r') y(r') dr' = \epsilon y \quad (1)$$

Card 1/3

ACCESSION NR: AT4041503

where

$$\begin{aligned} y(0), \quad y(\infty) = 0, \\ \int_0^{\infty} y^2(r) dr = 1. \end{aligned} \quad (2)$$

for the eigen values ξ . Helfond's method, as described by O. V. Lokutsiyevskiy (Uspekhi Matem. Nauk, XI, 3, (69), 224, 1956), is used for solution of the boundary value problem. The iteration procedure starts with $y^0(0) = 0$, and solves for $y^{(1)}(r)$ and ξ^1 , after which the integral portion of the equation is computed. From this a correction factor for the eigen value is obtained. A special iteration process is used for computation of $y_1(r, \xi)$ and $y_2(r, \xi)$ to obtain a convergent solution and prevent computer saturation. Four auxiliary subprograms are used and can be adapted to solutions for any state. The control program must be rewritten for each system separately. A similar program is used for continuous spectrum solutions. A separate subprogram is used to check the formation of the maxima of the normalization function for the continuous case. The program was used to compute wave functions of L_1 which are given in a table. The continuous spectrum wave functions were then used to compute the cross-sections of photoionization of the N^{+4} ion. Both ground and excited states are listed. Orig. art. has: 37 equations and 2 tables.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR, Moscow (Institute of Chemical Physics, AN SSSR)

Card 2/3

ACCESSION NR: AT4041503

SUBMITTED: 00

ENCL: 00

SUB CODE: GP,DP

NO REF SOV: 001

OTHER: 001

Card 3/3

PYATETSKII-SHAPIRO, I. I. Doc Phys-Math Sci -- (diss) "Geometry of limited homogeneous ^{fields} regions in p-measure complex space, and the theory of automorphic functions." Mos, 1959. 8 pp (Acad Sci USSR. Department of Applied Math of the ^{MATH} Inst im V. A. Steklov), 150 copies. Bibliography: pp 7-8 (20 titles) (KL, 46-59, 134)

USSR/Mathematics - Pedagogy

Jul/Aug 52

"Congress on Solution of Problems for Students of Mechanical-Mathematical Faculty of Moscow State University (1950/51 School Year)," I. I. Pyatetskiy-Shapiro

"Uspekh Matemat Nauk" Vol VII, No 4 (50), pp 185-187

In spring of 1951 the Sci Student Soc of subject faculty conducted its 3d congress on soln of problems for students of 1-3 courses. The following took part in proposal of problems submitted at the congress: Prof S. P. Finkov, Ye. B. Dynkin,

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Dr Phys-Math Sci, I. R. Shafarevich, Dr Phys-Math Sci, plus several docents and candidates. The problems (20) are stated; student prize winners are listed.

PYATETSKIY-SHAPIRO, I. I.

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Pyateckii-Sapiro, I.I.

(iv) f_n converges (weak-star) to zero. It is an unsolved problem whether or not condition (ii) may be omitted. In the paper under review it is falsely stated that the conditions are necessary. In PS II it is shown that every closed set of uniqueness is a countable union of closed sets, each of which satisfies conditions (i), (iii) and (iv).

A closed set E is a pure M -set if every non-void portion of E is a set of multiplicity. A "portion" of E is any intersection of E with an open interval. Theorem. E is a pure M -set if and only if there is a weak-star closed ideal S in W such that E is the set of common zeros of the functions in S .

A family of s sequences of positive integers (n_k, i)

Рядовый - Сепаратор I.I.

The author disproves this by showing that for each s the family H^s contains closed sets that are not countable unions of sets from families of smaller indices.

A set is called M in the restricted sense if there is a positive unit mass on E with Fourier-Stieltjes coefficients

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Analysis

8-24-54
LL

✓
(2) Hall
Pyateckii-Sapiro, I. I. Fractional parts and some questions of the theory of trigonometric series. Uspehi Matem. Nauk (N.S.) 8, no. 3(55), 167-170 (1953). (Russian)

The author gives a summary, without proofs, of his results published elsewhere [see, in particular, Izvestiya Akad. Nauk SSSR. Ser. Mat. 15, 47-52 (1951); Doklady Akad. Nauk SSSR (N.S.) 83, 497-500 (1952); these Rev. 13, 213; 14, 161]. Another paper whose results he quotes and which has appeared in the Moskov. Gos. Univ. Uchenye Zapiski 155, Matematika 5 (1952) is still not available for review.

A. Zygmund (Cambridge, England).

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Pyateckil-Sapiro, I. I. On the distribution of prime numbers in sequences of the form $[f(n)]$. Mat. Sbornik N.S. 33(75), 559-566 (1953). (Russian)

The principal result is that the number of primes in the sequence $[n^c]$ not exceeding x is asymptotically $x^{1/c}/\log x$ for $1 \leq c < 12/11$. The proof depends upon the estimation of trigonometric sums à la Vinogradoff. R. Bellman.

Mathematical Review.
June 1954
Number Theory

10-7-54
LL

Pyatetskiy-Shapiro I.I.
SIEGEL, C.L.; PYATETSKIY-SHAPIRO, I.I. [translator]; SHAFAREVICH, I.R., redaktor
AGRANOVICH, M.S., redaktor; GERASIMOVA, Ye.S., tekhnicheskii
redaktor.

[Analytic functions of several complex variables] Avtomorfnye
funktsii neskol'kikh kompleksnykh peremennykh. Perevod s angliisko-
go I.I. Piatetskogo-Shapiro. Pod red. I.R. Shafarevicha. Moskva, Izd-
vo inostrannoi lit-ry, 1954. 167 p. (MLRA 7:11)
(Functions, Automorphic)

PYATETSKIY-SHAPIRO, I. I.

U S S R .

Pyateckii-Shapiro, I. I. Abelian modular functions. Doklady Akad. Nauk SSSR (N.S.) 95, 221-224 (1954). (Russian)

A discussion of the author's extension of Siegel's definitions of modular group and modular functions of degree (genus) n [Math. Ann. 116, 617-657 (1939); these Rev. 1, 203] to the following. Let Ω be the set of matrices ω with p rows and $2p$ columns $\omega_1, \dots, \omega_{2p}$, for which there exists a non-degenerate Abelian function with periods $\omega_1, \dots, \omega_{2p}$. Let $\mathfrak{A}$ be the multiplication algebra of some irreducible matrix ω . Denote by R_ω a rational skew-symmetric matrix of order $2p$, and let $\Omega_\mathfrak{A}$ be the set of all ω in Ω with multiplication algebra $\mathfrak{A}$ and such that $\omega R_\omega \omega' = 0$ and $\overline{\omega} R_\omega \omega' > 0$. Then the modular group $\Gamma_\mathfrak{A}$ on $\Omega_\mathfrak{A}$ is the set of all unimodular matrices U of order $2p$ such that if $\omega \in \Omega_\mathfrak{A}$, then also $\omega U' \in \Omega_\mathfrak{A}$.
W. H. Simons (Vancouver, B. C.).

1-8/14

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PYATETSKIY, I. I.

USSR/ Mathematics

Card : 1/1

Authors : Pyatetskiy-Shapiro, I. I.

Title : Analogue of one Lefschetz theorem

Periodical : Dokl. AN SSSR, 96, Ed. 5, 917 - 920, June 1954

Abstract : It is pointed out that the problem on the birationality of algebraic multiformities, solved by Lefschetz with the help of Abelian uniformizing functions, can also be solved by another method based on the application of automorphic functions of a limited region of existence. Three references.

Institution : The V. I. Lenin State Pedagogical Institute, Moscow

Presented by : Academician, P. S. Aleksandrov, April 9, 1954

Pyatetskiy - Shapiro, I.I.
USSR/Mathematics / Functional theories

Card 1/1 Pub. 22 - 2/63

Authors : Berezin, F.A., and Pyatetskiy-Shapiro, I.I.

Title : Homogeneous expansions of a complex space

Periodical : Dok. AN SSSR 99/6, 889-892, Dec 21, 1954

Abstract : The properties are discussed of complex multiformities which are multi-dimensional generalizations of the Riemann sphere and which in turn is a homogeneous space. A proof is presented, that multiformities belong to the same class of multiformities, namely, to the class D, if:

1. They are homogeneous expansions of an affine complex space; or
2. They are homogeneous single-valued algebraic multiformities; or
3. They are homogeneous complex multiformities, a field of meromorphic functions isomorphically parallel to the field of rational functions with the same number of variables as is the dimension of the D - multiformity; or
4. They can be described as spaces of the class of adjacency to a certain complex, semi-simple group G by its complex sub-group containing the highest resolvable sub-group of the G group. Ten references; 5-USSR (1929-1954).

Institution:

Presented by: Academician A.M. Kolmogulov, October 26, 1954

PYATITSKIY-SHAPIRO, I.I.

Supplement to the paper "Uniqueness problem for the expansion of a
function into trigonometrical series". Uch.zap.Mosk.un. 165:79-
97 '54. (MLRA 8:2)
(Functions) (Fourier's series)

WATKINS-SHAPIRO, I. I.

"Some Problems of the Theory of Antiholomorphic Functions of
Certain Complex Variables." Cond Phys-Math Sci, Moscow State
Pedagogical Inst imeni V. I. Lenin, 20 Sep 54. (VM, 3 Sep 54)

SO: Sum 432, 29 Mar 55

Call Nr: AF 1108825

Pyatetskiy-Shapiro, I. I.

Transactions of the Third All-union Mathematical Congress, Moscow, Jun-Jul '56,
Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Pinsker, A. G. (Leningrad). Locally Ordered Groups. 32-33

Plotkin, B. I. (Sverdlovsk). Radical and Semi-Simple Groups
and Lie Algebras. 33

There are 2 references, both of them USSR.

Pyatetskiy-Shapiro, I. I. (Moscow). Modular Functions
of Several Variables. 33

Sadovskiy, L. Ye. (Moscow). Subgroup Lattice of
Nilpotent Torsion Free Group. 33-34

Mention is made of Kontorovich, P. G. and Plotkin, B. I.

There is 1 USSR reference.

Skornyakov, L. A. (Moscow). T-homomorphisms of Rings and
Non-associative Free Fields. 34-35

PYATETSKIY - SHAPIRO, I.I.

SUBJECT
AUTHOR
TITLE
PERIODICAL

USSR/MATHEMATICS/Theory of functions
PJATECKIJ-SAPIRO, I.I.
Singular modular functions.
Izvestija Akad. Nauk, Ser. mat. 20, 53-98 (1956)
reviewed 5/1956

Let p be a natural number. A complex matrix M of p rows and $2p$ columns is called a Riemannian matrix if the conditions $\text{Re } M' = 0$, $i \text{Im } M' > 0$ with a rational alternating matrix R are satisfied. Two Riemannian matrices M_1 and M_2 are called equivalent if there exists a complex matrix L with $LM_1 = M_2 \cdot A$ rational matrix A is called multiplier of M if MA is equivalent with M . These multipliers form a ring. It is assumed that this ring is isomorphic to a total-real algebraic number field $\mathbb{Q}$ of degree n . For a given $\mathbb{Q}$ and R the author considers the modular group and the corresponding modular functions. If specially $n = 1$ and $R = \begin{pmatrix} 0 & E \\ -E & 0 \end{pmatrix} = J = J^p$, then in every class of equivalent Riemannian matrices, the normalization $M = (EZ)$ can be obtained, where the symmetric matrix $Z = X + iY$ lies in the generalized upper halfplane $Y > 0$; then it concerns the modular function of p -th degree which were introduced by Siegel (Math. Ann. 116, 617-657 (1939)). For arbitrary R one may restrict to the case $R = \begin{pmatrix} 0 & P \\ -P & 0 \end{pmatrix}$ with an integer diagonal matrix P , and for $n = 1$ the connected modular group is commensurable with the modular group of p -th degree, i.e. the intersection of these groups has a finite index in both groups. For

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... generated by
... following three
... is not a fixed point of a
... 2) To every two
... functional determinant; 2) To every two
... by a modular substitution, there exists a modular
... regular in these two points and assuming there two different
... The field of the modular functions is isomorphic to an algebraic

Izvestija Akad. Nauk, Ser. mat. 20, 53-98 (1956)

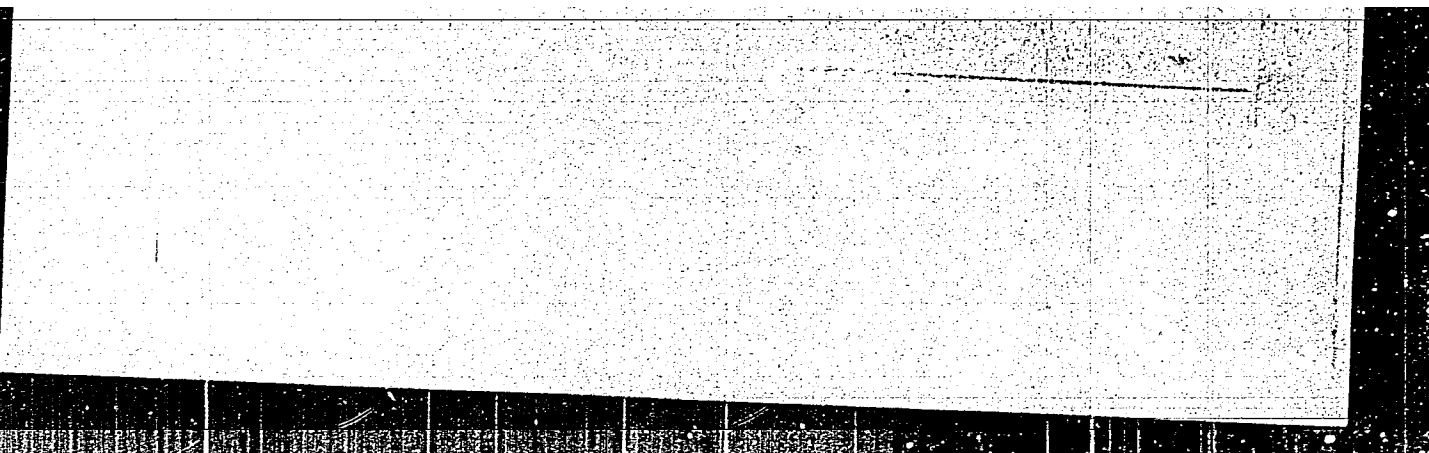
CARD 3/3

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. function field of transcendency m . These are generalizations of results of the mentioned papers of Maasz and of Siegel, where in the cases $R = J$ and $n = 1$ or $n = p$ the assertions 1) and 2) are new in this precise form. The refinement is obtained by the use of Poincaré's series instead of the Eisenstein's partial fraction series. For the generalization to arbitrary α the author uses the reduction theory of Humbert (Comm.Math.Helv. 12, 263-306 (1940)).

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343720011-9



APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343720011-9"

Pyatetskiy-Shapiro, I. I.

✓ Pyateckii-Shapiro, I. I. Classification of modular groups.
Dokl. Akad. Nauk SSSR (N.S.) 110 (1956), 19-22.
(Russian)

Mail The author specializes the classification begun in his
earlier work [same Dokl. (N.S.) 106 (1956), 973-976; MR
18, 19] to algebraic Riemann matrices, yielding three
types of multiplier algebras: The first type is a commu-
tative algebra based on an imaginary quadratic extension

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of a totally real field

$$1, i, j, k=ij, i^2=\alpha, j^2=\beta, ij=-ji,$$

and the third type has basis

$$1, i, j, k=ij, i^2=-\alpha, j^2=-\beta, ij=-ji,$$

where α, β are totally positive elements of the field.

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PYATETSKIY-SHAPIRO, I.I.

Estimate of the dimensionality of the space of automorphous
forms for certain types of discrete groups. Dokl. AN SSSR
113 no.5:980-983 Ap '57. (MIRA 10:7)

1. Kalushskiy gosudarstvennyy pedagogicheskiy institut. Pred-
stavleno akademikom A.N. Kolmogorovym.
(Spaces, Generalized)

Pyatetskii - Shapiro, I.I.

20-2-5/50

AUTHOR: PYATETSKIY -- SHAPIRO, I.I. (Kaluga)

TITLE: Some Questions of Harmonic Analysis in Homogeneous Cones
(Nekotoryye voprosy garmonicheskogo analiza v odnorodnykh konusakh).

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 116, Nr 2, pp. 181-184 (USSR)

ABSTRACT: The following generalization

$$(1) \int_V e^{-\delta(YT)} u(Y) |Y|^{s - \frac{p+1}{2}} dY = \prod_{i=1}^p \Gamma(s - \delta_i) \dots$$

$$\dots \Gamma(s - \delta_p) u(T^{-1})(T)^{-s}$$

of an older formula of Siegel [1] is due to Maass [2], where Y is a real symmetric matrix, V is the convex, homogeneous cone formed by the matrices with positive eigenvalues, and $u(Y)$ the bounded solution of a system recently introduced by Selberg.

The author gives a rather simple proof of the formula (1) and of some generalizations, whereby in the course of the proof the magnitudes $\delta_1, \delta_2, \dots, \delta_p$ can be effectively determined.

The author gives some examples for the application of the obtained formulas.

CARD 1/2

Some Questions of Harmonic Analysis in Homogeneous Cones

20-2-5/50'

ASSOCIATION: Kaluga State Pedagogical Institute (Kaluzhskiy gosudarstvennyy
pedagogicheskiy institut)

SUBMITTED: March 7, 1957

AVAILABLE: Library of Congress

CARD 2/2

Pyatetskiy, I.I.
AUTHOR: POSTNIKOV, A.G., PYATETSKIY, I.I.
TITLE: Normal Sequences of Signs According to Bernoulli (Normal'nyye po Bernulli posledovatel'nosti znakov).
PERIODICAL: Izvestiya Akad.Nauk, Ser.Mat., 1957, Vol.21, Nr 4, pp.501-514 (USSR)
ABSTRACT: An unlimited sequence of independent experiments is assumed to take place in which an event with the probability p (q) can occur (be absent), $p+q = 1$. Let the occurrence be denoted by 1, the absence by 0. Let the arising sequence be denoted by result sequence. To each sequence $\alpha = (\alpha_1, \alpha_2, \alpha_3, \dots)$ of 0 and 1 there corresponds the real number of the interval $[0, 1)$

$$\alpha = \frac{\alpha_1}{2} + \frac{\alpha_2}{2^2} + \dots + \frac{\alpha_n}{2^n} + \dots$$

(1) On $[0, 1]$ the following measure μ is introduced: $\mu([0, \frac{1}{2}]) = q$,
 $\mu([\frac{1}{2}, 1]) = p$, $\mu([0, \frac{1}{4}]) = q^2$, $\mu([\frac{1}{4}, \frac{1}{2}]) = qp$,
 $\mu([\frac{1}{2}, \frac{3}{4}]) = pq$, $\mu([\frac{3}{4}, 1]) = p^2$ etc.

The line

CARD 1/3

Normal Sequences of Signs According to Bernoulli

38-4-3/10

$$(2) \quad (\alpha_1 \alpha_2 \dots \alpha_s)(\alpha_2 \alpha_3 \dots \alpha_{s+1}) \dots (\alpha_P \alpha_{P+1} \dots \alpha_{P+s-1})$$

is denoted as derived sequence of length P and of rank s of the sign sequence $\alpha = (\alpha_1, \alpha_2, \dots)$. Let $N_P(\alpha, \Delta)$ or $N_P(\Delta)$ be the number which indicates how many times a given s -termed combination of signs $\Delta = (\epsilon_1, \epsilon_2, \dots, \epsilon_s)$, where ϵ is either 0 or 1, occurs in the derived sequence (2). A sign sequence α is denoted normal according to Bernoulli, if

$$\lim_{P \rightarrow \infty} \frac{N_P(\Delta)}{P} \text{ exists for each } s \gg 1 \text{ and for each } s\text{-termed } \Delta$$

and is equal to $\mu \Delta$.

Theorem: The result sequence is with probability 1 a normal sign sequence according to Bernoulli.

Theorem: The sign sequence α is assumed to have the property that for each $s \gg 1$ and for each s -termed combination Δ there always holds the inequality

$$\lim_{P \rightarrow \infty} \frac{N_P(\alpha, \Delta)}{P} < C \mu \Delta$$

CARD 2/3

where C is a constant independent of s and Δ . Then α is

Normal Sequences of Signs According to Bernulli

38-4-3/10

a normal sign sequence according to Bernulli.
The author proves the first theorem with the aid of the ergodic theorem of Birkhoff - Khinchin. On the other hand, however, the theorem is a consequence of the strong law of large numbers for Markov chains. The second theorem is a generalization of the criterion of Shapiro - Pyatetskiy (Izvestiya. Akad.Nauk 15, 47-52, 1951).

PRESENTED: By I.M. Vinogradov, Academician

SUBMITTED: October 4, 1956

AVAILABLE: Library of Congress

CARD 3/3

PYATETSKIY, I. I.

38-6-1/5

AUTHOR: POSTNIKOV, A. G., PYATETSKIY, I. I.

TITLE: A Normal (According to Markov) Sequence of Signs and a Normal Continued Fraction.
(normal'naya po Markovu posledovatel'-nost' znakov i normal'naya tsepnaya drob')

PERIODICAL: Izvestiya Akademii Nauk, SSR, Seriya Matematicheskaya, 1957, Vol. 21, Nr. 6, pp. 729-746 (USSR)

ABSTRACT: The present paper is a continuation of the authors preceding publication [Ref. 1].
Theorem 1: In the space of a dynamic system let be given two invariant normed measures μ and $\bar{\mu}$. Let exist a constant $C > 0$ such that for every set M measurable with respect to the measures μ and $\bar{\mu}$ there holds: $\bar{\mu}(M) \leq C \mu(M)$. Let the system be undecomposable with respect to μ . Then for every open set there holds: $\bar{\mu}(M) = \mu(M)$.
Let a system admit the states E_0 and E_1 . Let p_{ij} , $i=0,1$, $j=0,1$, be the probabilities of the transition from E_i into E_j . Let the initial probabilities be $p_0 = \frac{p_{10}}{p_{01}+p_{10}}$, $p_1 = \frac{p_{01}}{p_{01}+p_{10}}$. The result of such a scheme is given as a sequence of the signs 0 and 1, 0 for the occurrence of E_0 , 1 for E_1 . Let to the sequence

Card 1/4

A Normal (According to Markov) Sequence of Signs and a Normal Continued Fraction.

38-6-1/5

$\alpha = (\alpha_1, \alpha_2, \dots)$ correspond the number $\alpha = \frac{\alpha_1}{2} + \frac{\alpha_2}{2^2} + \frac{\alpha_3}{2^3} + \dots$

On $[0, 1)$ let the measure μ be introduced as follows: Let the measure of $[\frac{A}{2^n}, \frac{A+1}{2^n})$, where $n \geq 0$ integral, $A \geq 0$ integral,

$A = 2^{n-1} \alpha_1 + 2^{n-2} \alpha_2 + \dots + \alpha_n$, be $p \alpha_1 p \alpha_1 \alpha_2 \dots p \alpha_{n-1} \alpha_n$.

From the sequence (or number) $\alpha = \alpha_1, \alpha_2, \dots, \alpha_p, \dots$ the row

$(\alpha_1 \alpha_2 \dots \alpha_s)(\alpha_2 \alpha_3 \dots \alpha_{s+1}) \dots (\alpha_p \alpha_{p+1} \dots \alpha_{p+s-1})$

is formed. The row is called a ramp of length P and rank s of the number α . Let $N_p(\Delta)$, $\Delta = (\epsilon_1, \epsilon_2, \dots, \epsilon_s)$, be the number

of combinations Δ in the ramp of length P and rank s . The sequence of signs α is called normal in the sense of Markov if for every $s \geq 1$ and every Δ there holds: there exists

$\lim_{p \rightarrow \infty} \frac{N_p(\Delta)}{P}$ and equals $\mu \Delta$.

Theorem 2: The measure μ of the set of numbers α being normal in the sense of Markov, equals 1.

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A Normal (According to Markov) Sequence of Signs and a Normal Continued Fraction

38-6-1/5

Theorem 3: If for every $s \geq 1$ and every Δ there holds

$$\lim_{p \rightarrow \infty} \frac{N_p(\alpha, \Delta)}{p} < C \mu \Delta,$$

where $C = \text{const}$ does not depend on s and Δ , then α is a sequence of signs normal in the sense of Markov. Two further theorems relate to the continued fractions

$$\alpha = \frac{1}{c_1 + \frac{1}{c_2 + \dots}},$$

also written in the form $\alpha = c_1 c_2 c_3 \dots$, whereafter for them the measure

$$\mu \Delta = \frac{1}{\log 2} \int_{\Delta} \frac{dx}{1+x}$$

is introduced. It is stated that all fractions α are normal with respect to the measure μ (or with respect to the Lebesgue measure). The theorem 3 is transferred to fractions (theorem 4). Two Soviet and 2 foreign references are quoted.

Card 3/4

A Normal (According to Markov) Sequence of Signs and a Normal
Continued Fraction

38-6-1/5

PRESENTED: By I.M.Vinogradov, Academician

SUBMITTED: November 17, 1956

AVAILABLE: Library of Congress

Card 4/4

PYATETSKIY-SHAPIRO, I.I.

Distribution of the fractional portion of an exponential function.
Uch. zap MGPI 108:317-322 '57. (MIRA 11:12)
(Functions, Exponential)

PYATETSKIY-SHAPIRO, I.I.

20-5-9/67

AUTHOR
TITLE

PYATETSKIY-SHAPIRO I.I.

On the Estimation of the Dimensional Number of Space of Automorphic Forms for Some Types of Discrete Groups.
(Ob otsenke razmernosti prostranstva avtomorfnykh form dlya nekotorykh tipov diskretnykh grupp.- Russian)

PERIODICAL

Doklady Akademii Nauk SSSR 1957, Vol 113, Nr 5, pp 980-983 (USSR)

ABSTRACT

The paper under review describes a general class of discrete groups in limited symmetrical ranges for which we have the necessary estimate. K. ZIGEL and after him other authors used for the estimate of the abovementioned dimensional number an analytical projection of the limited symmetrical range in a certain unlimited range. The author of the paper under review investigates two ranges that play the rôle of the upper half-planes and which are called in this paper ZIGEL ranges of first and second kind. In the ZIGEL ranges of the first kind FOURIER-series are used, and in the ZIGEL ranges of the second kind such FOURIER-series are used the coefficients of which are JAKOBI functions.

Definition 1: Let V stand for an open convex cone in the space with n -dimensions and let this cone not contain all points of a straight line. The cylindrical range H with the basis V is called here ZIGEL range of the first kind. Some properties of these ZIGEL

CARD 1/2

PYATETSKIY-SHAPIRO, I.I.

Some problems in the harmonic analysis in homogeneous cones. Dokl.
AN SSSR 116 no.2:181-184 S '57. (MIRA 11:2)

1. Kaluzhskiy gosudarstvennyy pedagogicheskiy institut. Predstavleno
akademirom M.A. Lavrent'yevym.
(Harmonic analysis)

16(1)
 AUTHORS: Gel'fand, I.M., and Pyatetskiy-Shapiro, I.I. SOV/42-14-2-5/19
 TITLE: Theory of the Representations and Theory of Automorphic Functions
 PERIODICAL: Uspekhi matematicheskikh nauk, 1959, Vol 14, Nr 2, pp 171-194 (USSR)
 ABSTRACT: In the paper of the authors and S.V.Fomin [Ref 4] firstly the connection between the theory of infinite-dimensional representations of Lie groups and the theory of automorphic functions was pointed out. In the present paper this connection is investigated furthermore. It is shown that many questions of the theory of automorphic functions can be treated uniformly with the aid of infinite-dimensional representations. The calculation of the dimension of the space of automorphic forms is reduced to the determination of the multiplicity with which the corresponding irreducible representation appears in the decomposition of a certain representation. In a simple manner the authors introduce nonanalytic automorphic functions. The trace formula of [Ref 4] is generalized to the case of an arbitrary non-compact Lie group. The trace formula of Selberg

Card 1/2

Theory of the Representations and Theory of Automorphic SOV/42-14-2-5/19
Functions

[Ref 2] is a special case. The duality theorem of Cartan is transferred to the considered case.

The authors mention A.G.Kostyuchenko and M.A.Naymark.

There are 11 references, 5 of which are Soviet, 4 American, 1 German, and 1 French.

SUBMITTED: December 2, 1958

Card 2/2

16(1)

AUTHOR: Pyatetskiy-Shapiro, I.I.

SOV/20-124-4-8/67

TITLE: Discrete Subgroups of the Group of Analytic Automorphisms of the Polycylinder and Automorphous Forms (Diskretnyye podgruppy gruppy analiticheskikh avtomorfizmov politsilindra i avtomorfnyye formy)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 4, pp 760-763 (USSR)

ABSTRACT: Let G be the group of all analytic automorphisms of the polycylinder $D: z_1 \neq 1, z_2 \neq 1, \dots, z_n \neq 1$. The author considers discrete subgroups g of G and forms of the weight m automorphic with respect to g .
Theorem: Let g contain a transformation so that $(z)_k = z_k$ for k and $(z)_k \neq z_k$ for $k \neq n$. Then g is commensurable with the product of g_1 and g_2 , where g_1 consists of transformations so that $(z)_k = z_k$, $k \neq n$, and g_2 consists of transformations for which $(z)_k = z_k$, $1 \leq k \leq n$. The theorem is valid only if the volume of the fundamental domain of g is finite.

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An asymptotic formula for the dimension of the space of the automorphic forms of weight m is given (for $m \rightarrow \infty$). Seven theorems are given altogether. The author thanks I.M.Gel'fand. There are 2 references, 1 of which is Soviet, and 1 German.

ASSOCIATION: Matematicheskiy institut imeni V.A.Steklova Akademii nauk SSSR
(Mathematical Institute imeni V.A.Steklov AS USSR)

PRESENTED: September 6, 1958, by M.V.Keldysh, Academician

SUBMITTED: September 9, 1958

Card 2/2

16(1)

AUTHOR: Pyatetskiy-Shapiro, I.I.

SOV/20-124-2-7/72

TITLE: On a Problem of E.Cartan (Ob odnoy probleme E.Kartana)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 2, pp 272-273 (USSR)

ABSTRACT: The author joins the investigations of E.Cartan [Ref 1] and A.Borel [Ref 2]. Cartan asked whether every bounded homogeneous domain of the n-dimensional complex space is symmetric. Borel gave a partial solution. The author constructs an example, namely an unsymmetric bounded homogeneous domain in the five-dimensional complex space. Let

$$Z = \begin{pmatrix} z_1 & z_2 \\ z_2 & z_3 \end{pmatrix}, \quad U = \begin{pmatrix} u_1 \\ u_2 \end{pmatrix}.$$

The sought domain H consists of the pairs (Z,U) for which the matrix $\frac{1}{i} (Z - \bar{Z}) - U\bar{U}' - \bar{U}U'$ is positive definite.

There are 3 references, 1 of which is Soviet, 1 German, and 1 French.

ASSOCIATION: Otdeleniye prikladnoy matematiki matematicheskogo instituta imeni V.A.Steklova Akademii nauk SSSR (Section of Applied Mathematics imeni V.A.Steklov of the AS USSR)

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16(1)

AUTHORS:

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Shapiro, I.I.

SOV/20-127-3-2/71

TITLE:

On a Poincaré Theorem

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 490-493 (USSR)

ABSTRACT:

The authors generalize a well-known result of Poincaré on the mean number of revolutions to ergodic dynamic systems with a summable directional field.

Let M be a compact differentiable manifold; $\gamma_1, \gamma_2, \dots, \gamma_p$ the base of the group of integral homologies of M . Let x be a point of M . Let a dynamic system, i.e. a one-parameter group $x \rightarrow x_t$ with the invariant measure μ be defined on M . A trajectory rising in x is assumed to return infinitely often into a neighborhood U of x , and this may happen for the parameter values $t_1 < t_2 < \dots (t_k \rightarrow \infty)$. If the points x and x_{t_k} are connected by a trajectory lying in U , then the homology class of the obtained closed cycle $\gamma(t_k)$ does not depend on the

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choice of the trajectory. Let $y(t_k) = m_1(t_k)y_1 + \dots + m_p(t_k)y_p$.
 $\lim_{k \rightarrow \infty} \frac{m_i(t_k)}{t_k} = \lambda_i$ is denoted as mean frequency of rotation.

It is shown that this limit exists and is equal to the same number for almost all trajectories. Two examples are given:

1. M the torus 2. $M = G/\Gamma$, where G is the group of real matrices of second order and Γ a discrete subgroup of G without elements of finite order.

S.V. Fomin is mentioned.

There are 4 references, 2 of which are Soviet, 1 American, and 1 French.

SUBMITTED: May 14, 1959

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SOV/42-15-1-2/27

AUTHOR: Pyatetskii-Shapiro, I. I.

TITLE: Theory of Modular Functions and Related Problems in
the Theory of Discrete Groups

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Nr 1, pp 99-136
(USSR)

ABSTRACT: The article presents a survey of the theory of modular
functions, specifically with modular abelian functions.
It consists of four parts: Part 1 presents basic
properties of Siegel's modular functions; Part 2 gives
a general method of construction of modular abelian
functions and their corresponding modular groups;
Part 3 gives a construction of an analytic extension
of the factor-space D/Γ where D is a classical
domain, and Γ is a discrete group of analytic
automorphisms for the case when D/Γ is not compact.
This construction is a generalization of an analogous

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construction for one complex variable. For some cases the resulting extension is compact, i.e., this holds for all modular abelian groups, also specifically for Siegel's modular groups, and in the latter case the "compactification" coincides with Satake's method. Part 4 considers some problems associated with the following: (1) Hecke's T-operators, i.e., construction of a ring with certain properties for a wide class of arithmetic groups, specifically for modular abelian groups. (2) Arithmetic problems in the theory of linear algebraic groups. Let G be a linear algebraic group over the field of rational numbers k , ω be some norm in k , k_ω is the extension of k in this norm. It is known that if two algebraic subgroups G and R of the group of n -order matrices over k are conjugate, then the groups G_ω and R_ω in the group of matrices over k_ω are also conjugate. The problem is to find conditions for which the converse holds. (3) Construction methods of discrete subgroups of Lie groups. In many cases discrete groups Γ of some Lie group G arise, having the property that the

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factor space G/Γ is compact or that it has a finite invariant volume. The problem is to find a construction for arbitrary Lie groups having this property. For nilpotent groups a construction was given by A. I. Maltsev (On a Class of Homogeneous Domains, Izv. A. N., 13, Nr 1, 1949, pp 9-33). (4) Structure of fundamental domains. An important and difficult problem is the following: Let D be a classical domain and Γ a discrete group of its analytic automorphisms. Prove that if the fundamental domain D/Γ has a finite volume then the complex space R is compact. (5) Algebraic structure of fields of automorphic functions connected with some arithmetic groups. Here almost nothing is known. There exists a hypothesis that the field of Siegel's modular functions of degree p , is isomorphic to the field of

rational functions of $\frac{p(p+1)}{2}$ unknowns. This was

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proved for $p = 1$ and for $p = 2$ by A. I. Lapin (On the

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Theory of Siegel's Modular Functions of Degree 2, Isv. A. N., 20, 3, 1956, pp 325-337). Nothing is known of the algebraic structure of the field of Hilbert's modular functions. The author expresses gratitude to I. M. Gel'fand and I. R. Shafarevich for valuable comments. There are 48 references, 2 French, 1 Italian, 17 Soviet, 18 German, 5 U.S., 4 Indian, 1 Japanese. The 5 most recent U.S. references are: W. Baily, Satake's Compactification of V_n , Amer. Journ. Math., 80, (2), 1958, 348-364; A. Weil, Discontinuous Subgroups of Classical Groups, The Univ. of Chicago, 1958; C. L. Siegel, Symplectic Geometry, Amer. Journ. Math., 65 (1943), 1-86; C. L. Siegel, Discontinuous Groups, Ann. of Math. (2), 44 (1943), 674-689; A. A. Albert, A Solution of the Principal Problem in the Theory of Riemann Matrices, Ann. of Math., 35, 3 (1934), 500-515.

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